

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/000749

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: C12Q 1/68 C12N 15/00 A01K 67/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See electronic database

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See electronic database

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPIDS; MEDLINE; CAPLUS; SOCS, suppressor cytokine signaling, G-CSF, granulocyte colony stimulating factor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Matsumoto et al (2003) 'A role of suppressor of cytokine signaling 3 (SOCS3/CIS3/SSI3) in CD28-mediated Interleukin 2 Production' The Journal of Experimental Medicine. Vol 197(4): 425-436 See in particular 4 th paragraph, page 427	16, 17
X, Y	Crocker et al (2003) 'SOCS3 negatively regulates IL-6 signaling <i>in vivo</i> ' Nature Immunology. Vol 4(6): 540-545 Published online May 18 2003 See in particular page 541	16, 17

☒ Further documents are listed in the continuation of Box C☐ See patent family annex

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

20 August 2004

Date of mailing of the international search report

26 AUG 2004

Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaaustralia.gov.au
Facsimile No. (02) 6285 3929

Authorized officer

LEXIE PRESS

Telephone No : (02) 6283 2677

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/000749

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Georgiades et al (2002) 'vavCre Transgenic mice: A tool for mutagenesis in hematopoietic and endothelial lineages' Genesis. Vol 34: 251-256 See the whole document	16, 17
X	Hörtner et al (2002) 'Suppressor of cytokine signaling-3 is recruited to the activated granulocyte-colony stimulating factor receptor and modulates its signal transduction' The Journal of Immunology. Vol 169: 1219-1227 See the whole document	13 to 15
X	Hermans et al (2003) 'Signaling mechanisms coupled to tyrosines in the granulocyte colony-stimulating factor receptor orchestrate G-CSF-induced expansion of myeloid cells' Blood. Vol 101(7): 2584-2590 See the whole document	13 to 15
P, X	Croker et al (2004) 'SOCS3 is a critical physiological negative regulator of G-CSF signaling and emergency granulopoiesis' Immunity. Vol 20: 153-165 See the whole document	1 to 17
P, X	Kimura et al (2004) 'SOCS3 is a physiological negative regulator for granulopoiesis and granulocyte colony-stimulating factor receptor signaling' The Journal of Biological Chemistry. Vol 279(8): 6905-6910 See the whole document	1 to 17
P, X	Van de Geijn et al (2004) 'Distinct activities of suppressor of cytokine signaling (SOCS) proteins and involvement of the SOCS box in controlling G-CSF signaling' Journal of Leukocyte Biology. Vol 76: 237-244 See the whole document	1 to 15
P, X	Van de Geijn et al (2004) 'G-CSF receptor truncations found in SCN/AML relieve SOCS3-controlled inhibition of STAT5 but leave suppression of STAT3 intact' Blood. Vol 104(3): 667-674 See the whole document	1 to 15

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/000749

Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: V

Claims 1 to 12 relate to a disproportionately large number of possible compounds which are not supported by the description according to Article 6 PCT or can be considered disclosed according to Article 5 PCT. Claims 1 to 12 lack the appropriate support and the patent application lacks the required disclosure to such an extent that a meaningful search encompassing the entire scope of claims 1-12 is impossible. For this reason the search was directed at the inventive concept of the invention which appears to be the use of a transgenic animal with altered levels of SOCS3 to determine compounds that modulate G-CSF activity by modulating SOCS3 activity.

The Applicant's attention is drawn to the fact that claims, or parts of claims relating to inventions in respect of which no International Search Report has been established need not be the subject of an International Preliminary Examination.